

CLAIMS:

1. An optical receiver circuit comprising:

- an optical converter circuit (38) converting optical power into electrical power;
 - a sensor circuit detecting a characteristic value of the electrical power;
 - an attenuator circuit (44) having a variable attenuation, the attenuation being
- 5 controlled by the characteristic value of the electrical power output by the sensor circuit so as to obtain a constant output signal level of the optical receiver circuit.

2. An optical receiver circuit according to claim 1, wherein the optical converter circuit (38) comprises a photodiode.

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3. An optical receiver circuit according to claim 1, wherein the sensor circuit comprises a resistor network (58, 60) connected to the optical converter circuit (38) in order to derive a control voltage V_{CONTR} as the characteristic value of the electrical power output by the optical converter circuit (38).

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4. An optical receiver circuit according to claim 1, wherein the attenuator circuit (44) is a step attenuator circuit comprising a plurality of cascaded attenuator stages which can be selectively switched to active states.

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5. An optical receiver circuit according to claim 4, wherein the sensor circuit comprises an A/D converter (64) converting the control voltage V_{CONTR} into a digital signal controlling the attenuator stages of the attenuator circuit (44).

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6. An optical receiver circuit according to claim 4, wherein the respective attenuator stages each have a different attenuation value.

7. An optical receiver circuit according to any one of the claims 1 and 4 to 6, wherein the attenuator stages are attenuator stages comprising a resistor (86, 90, 94, 96, 102, 106) and a semiconductor switch in series with the resistor (86, 90, 94, 96, 102, 106).

8. An optical receiver circuit according to any one of the claims 1 and 4 to 6,
wherein the attenuator stages are attenuator stages comprising two resistors (94, 96) and a
semiconductor switch in series with the resistors (94, 96), one of the resistors (96) being
5 bridged by another semiconductor switch.
9. An optical receiver circuit according to claim 8 or 9, wherein capacitors (110,
112, 122, 124, 126, 128) are provided for separating respective input ends of the attenuator
stages, and also an input capacitor for coupling the input end of said attenuator stages to an
10 output of the optical receiver circuit and an output capacitor for coupling an output of the
attenuator circuit to the output circuit.
10. An optical receiver circuit according to any one of the claims 7 to 9, wherein
the semiconductor switches are MOSFETs (88, 92, 98, 100, 104, 109).